

STATEMENT OF CONSIDERATIONS

**REQUEST BY ARTHUR D. LITTLE, INC. (ADL) AND ITS LOWER-TIER
SUBCONTRACTORS FOR AN ADVANCE WAIVER OF DOMESTIC
AND FOREIGN PATENT RIGHTS UNDER DOE SOLICITATION NO.
DE-PS07-99ID13788; W(A)-00-009; CH1028**

The Petitioner, Arthur D. Little, Inc. (ADL), and its lower-tier Subcontractors, ExxonMobile and Callidus Technologies, have requested a waiver of domestic and foreign patent rights for all subject inventions arising under the above referenced solicitation and proposed awards and subcontracts entered thereunder. Gas Research Institute (GRI) is also a subcontractor under this proposed award. However, GRI is a nonprofit organization falling under Public Law 96-517. The solicitation is entitled, "High Efficiency, Ultra Low Emission Integrated Process Heater System."

Under the proposed award, the Petitioner and its Subcontractors will develop and demonstrate a new generation of efficient, low-emission, smart, integrated burner/fired-heater systems. The innovative system would include 1) ultra-low-emissions smart burners, 2) specially designed fired heaters having enhanced heat recovery, 3) on-line process tube temperature sensing and burner control systems, and 4) adaptive Predictive Emissions Monitoring Systems (PEMS) integrated into the process control systems to provide continuous emission information. Target applications are process heaters in the chemical and refining industries which account for approximately 40% of the total energy consumed for process heat in the U.S.

The total anticipated cost of the proposed cooperative agreement is \$7.85 million, and the period of performance is 2000 to 2004. The cost sharing, which is to be shared between the Petitioner and its Subcontractors, will be about 50%. The waiver is contingent upon the Petitioner and its subcontractors maintaining the above cost sharing percentages during the course of the agreement.

As noted in its waiver petition, Petitioner is an internationally recognized consulting firm with broad expertise in the areas of industrial combustion, heat transfer, and emissions technology development. Petitioner is a leader in the field of low-emissions combustion equipment development and has worked with major equipment manufacturers to develop novel combustion systems over the last 20 years. ExxonMobil Research and Engineering Company (EMRE) is a wholly owned subsidiary of Exxon Mobil Corporation and is widely recognized for its expertise in development, design, and application of fired heaters and their key components for all types of petroleum and petrochemical industrial uses. EMRE has more than 30 patents and licenses with regards to burners, fired heater components, and environmental control technologies. Callidus Technologies is a leading supplier of NO_x gas fired process heater burners and was the original developer of the state of the art ultra low NO_x technology first brought to the market place nine years ago. GRI has developed numerous burner technologies for multiple applications currently in use, including pulse burner technology, high efficiency residential furnaces, low NO_x technology for boilers, infrared burners, etc. which have all been commercialized through licenses and alliances with numerous manufacturers and engineering firms.

As set out in the attached waiver petition, Petitioner has also requested a waiver of patent rights in the subject inventions of its lower-tier Subcontractors, EMRE and Callidus. This waiver contemplates that the parties will allocate title or other rights to inventions among themselves as they deem appropriate during the course of their association consistent with the terms of this waiver. Accordingly, title may be waived directly to a Subcontractor upon mutual agreement of the Petitioner and the subcontractor. However, this waiver will only apply to such Subcontractor(s) which provide a letter to DOE acknowledging its right to ask for a waiver and agreeing to the terms of this waiver. This waiver shall not impact the rights of those parties subject to Public Law 96-517, as amended, nor shall it grant any rights in inventions made by employees of the National Laboratories.

Petitioner has agreed that this waiver shall be subject to the march-in and preference for U.S. industry provisions, as well as the U.S. Government license, comparable to those set out in 35 U.S.C. 202-204. Further, Petitioner has agreed to the U.S. competitiveness provisions as attached to this Statement. In brief, Petitioner has agreed that products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States unless Petitioner can show to the satisfaction of the DOE that it is not commercially feasible to do so, and that Petitioner will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements. Additionally, Petitioner has agreed to contractor data licensing provisions as attached herein.

Referring to item 10 of the waiver petition, granting this waiver is not anticipated to have any adverse impact on competition. Exxon Mobil will be utilizing the developed technology in its affiliated companies to reduce emissions and improve efficiency. Further, it will be a supplier of the technology via licensing to other petroleum companies as well. In the low NOx process heater burner technology, there are other major competitors in the United States in addition to Callidus. The success of this cooperative agreement can be expected to stimulate further investment and competition in this technology.

Considering the foregoing, it is believed that granting this waiver will provide Petitioner and its Subcontractors with the necessary incentive to invest its resources in the commercialization of the results of the cooperative agreement in a fashion which will make the above technology available to the public in the shortest practicable time. Therefore, upon evaluation of the waiver petition and in view of the objectives and considerations set forth in 10 CFR Part 784, all of which have been considered, it is recommended that the requested waiver be granted.

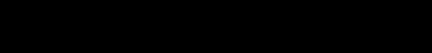


Daniel D. Park
Assistant Chief Counsel
Office of Intellectual Property Law

Date: 4/12/00


Based upon the foregoing Statement of Considerations and representations in the attached waiver petition, it is determined that the interests of the United States and the general public will best be served by a waiver of patent rights of the scope described above, and therefore the waiver is granted. This waiver shall not apply to any modification or extension of the cooperative agreement, where through such modification or extension, the purpose, scope or cost of the cooperative agreement has been substantially altered.

CONCURRENCE:


~~William Parks~~ MARSHA GUINN
Director, Office of Industrial
Cross-cut Technologies
EE-20

Date: 5/18/00

APPROVAL:


Paul A. Gottlieb
Assistant General Counsel
for Technology Transfer and
Intellectual Property

Date: 5-24-00

WAIVER ACTION - ABSTRACT
W(A)-00-009

REQUESTOR

Arthur D. Little

CONTRACT SCOPE OF WORK

High Efficiency, Ultra Low
Emission Integrated Process
Heater System

RATIONALE FOR DECISION

50% cost sharing